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1. INTRODUCTION

Satisfaction is the general feeling of contentment experienced by a person when his desire, need or expectation is fulfilled. The notion of job satisfaction focuses on measuring such contentment, specifically in the workplace. Different kinds of organisations not only provide distinct work atmospheres but also varied opportunities and advantages. Public sector companies offer more secure jobs along with prescribed hours of work, phased retirement provisions, pension schemes, yearly bonus, greater number of leaves, lesser work pressure and other facilities and allowances to their employees.

This study strives to focus its attention on Bhilai Steel Plant as a public sector employer and examine the primary drivers of job satisfaction among its employees working in different areas. More than 31,000 employees and around 20,000 contractual labourers are employed in this undertaking at present. The organisation has provided housing, community welfare and recreational facilities, medical facilities in the form of a central hospital cum research centre along with 12 health centres and educational facilities through 48 schools administered by it. It has taken due care in ensuring the well being of its employees through occupational health and safety policy, employees welfare schemes, enhancing the quality of work and by taking significant steps towards increasing worker's participation in management.

Since the enterprise has addressed several concerns directly and indirectly affecting job satisfaction levels, like job security & non-monetary benefits, the drivers for job satisfaction among its employees could thus exclude such as those mentioned above, and could be quite different from the commonly perceived ones. The study will investigate into the underlying reasons for job satisfaction and gauge its variation among the employees.

2 Bhilai Steel Plant

2.1 Historical Background

After independence, the government of India took a visionary decision to establish integrated steel plants under the exclusive responsibility of the state considering the huge investment required, which the then underdeveloped private industry would not have been able to provide. This was a crucial step towards accelerating economic development of the country by strengthening & reinforcing the neglected industrial base. To achieve this big goal, the government signed an agreement with USSR at New Delhi on 2nd march 1955, for setting up a steel plant at Bhilai, with an initial capacity of 1 million tonnes of ingot steel. The main reasons for selecting Bhilai as the location for the steel plant were the availability of iron ore at Dalli-Rajhara at a distance of about 90 kilometres from the site, limestone at Nandini mines at 22kms and dolomite at Hirri mines at 41 kilometres. The plant started its production with the inauguration of first blast furnace by the then President of India, Dr. Rajendra Prasad on 4th February 1959. The plant reached production level of 2.5 million tonnes in September 1967 and further expanded to 4 million tonnes by 1988.The main focus during the 1980s was on the Continuous Casting Unit and the Plate Mill, which involved relatively newer technology at that time.

2.2 Overview

It became the first integrated steel plant in India to cross crude production mark of 5 million tonnes in the year 2005-06. It produces both basic and special steels for the purpose of usage in construction, power, railway, automotive and other industries. It specializes in production of rails, heavy structurals, wire rods and plates. It holds the record of producing the cleanest rail in the country and is the sole supplier of longest rail tracks of 260 metres length. Since BSP is accredited with ISO 9001:2000 Quality Management System Standard, all saleable products of the plant come under the ISO umbrella. Under Corporate Plan 2012, BSP has planned to adopt latest technologies for improving productivity, yield and quality and for reducing operational costs. It also has set a target of reaching production level of 7.5 million tonnes. Extensive optical fibre network runs across the plant and township area. More than 31,000 employees and around 20,000 contractual labourers are employed in this undertaking at present. Though a handful of managers and a significant proportion of the contract labour

force are women, all of the regular non-executive workers assigned to duties inside the plant premises are men.

Although the number of its employees is far larger than other plants of comparable capacity, it has been able to show profit and is regarded as a successful enterprise in the Indian public sector. It produces good quality steel at lower cost and has a better record of maintaining harmonious industrial relations when compared with other state-run steel plants. It also supports a large number of private sector factories and ancillary industries, which are directly dependent on it.

2.3 Township

Bhilai is located 40 kilometres west of Raipur, the capital city of Chhattisgarh. It began as frontier town established in the broad plains of former Madhya Pradesh and now has grown into a flourishing town. It is regarded as an important industrial centre of Chhattisgarh which serves to dual philosophy of utmost utilisation of production assets on one hand and catering to needs of the residents on the other. The town is spread over 9,103 acres and is divided into 16 sectors, each of which has its own school, health care centre and shopping complexes. The 48-odd schools run by the organisation provide a healthy educational environment for the students.

2.4 Green City

Its township boasts of green cover of about 50 lakh trees in the plant and town area. There are 5 big gardens inside plant premises and 15 within the township area. The management has taken its obligations seriously and with the cooperation of residents, has undertaken massive tree plantation drives to ensure greenery all around.. The Town Administration Department ensures cleaning and maintenance of town areas and also provides basic civic amenities.

2.5 Corporate social responsibility

The organisation has paid due attention to development work of its peripheral areas through active participation in literacy programmes, community health programmes and improving rural infrastructure. Its Peripheral Development Programme includes areas beyond radius of 16 kms around Bhilai. The developmental activities include:

- Installation of hand pumps

- Construction of wells

- Construction of schools

- Construction of bridges

- Construction of roads

- Organising health and veterinary camps

- Adoption of model steel villages

- Providing free education and treatment through Bhilai Ispat Vikas Vidyalaya

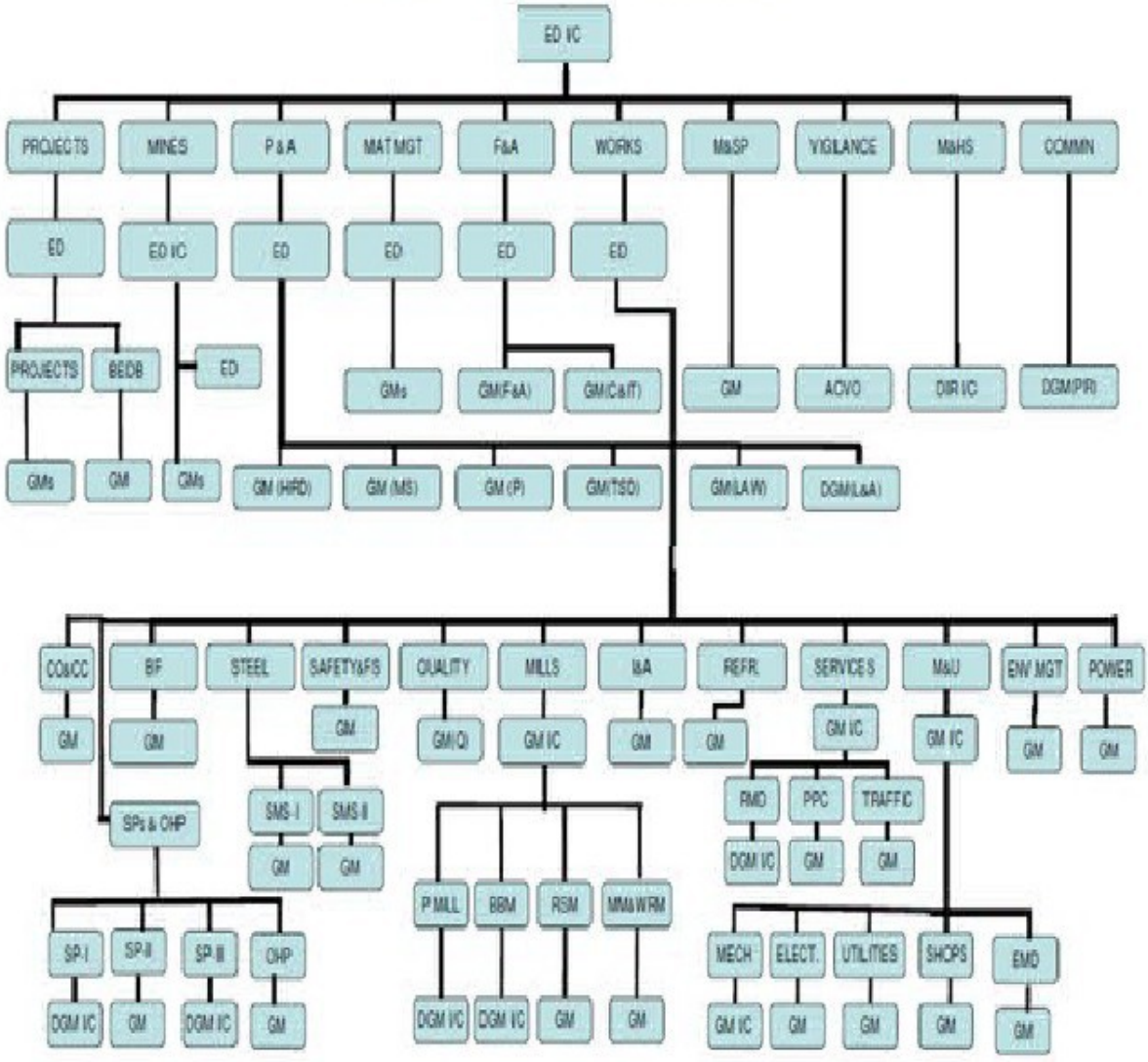
and Ispat Kalyan Chikitsalaya to backward sections of society

- Adoption of tribal children

2.6 Organizational Setup

The plant is headed by the Managing Director, who is a member of the Board of Directors and reports to the Chairman, SAIL. Top level management at the plant includes the CEO (Chief Executive Officer) and his DROs (Direct Reporting Officers) at Executive Director/ General Manager level, who are functional heads. Then come the zonal heads who are DROs to the functional heads and include mostly General Managers/ Deputy General Managers. The middle level is made up of sectional heads at Deputy General Manager/ Asst General Manager level and rest of the executive consists of positions from Senior Manager down to Junior Manager. Non executive employees are classified into 4 grades - unskilled, skilled, highly skilled and supervisors. The Non-Works (Personnel) department includes General Establishment section, Rules section, Law section, MPS & recruitment section, Executive Cell, SEWA, FSS & SEWA, IR section, Counselling section, Grievance section, Contract Labour Cell and Canteen Cell. The management gradation of the executive officers ranges from E0 (Junior Manager) to E9 (ED) and finally, MD. The non-executive gradation goes from L1 TO L11 level.

BHILAI STEEL PLANT
ORGANIZATIONAL STRUCTURE



3. REVIEW OF WORK ALREADY DONE IN THE FIELD OF JOB SATISFACTION

Several theories have been propounded discussing job satisfaction of employees. Abraham Maslow (1943) used hierarchy of needs to determine individual satisfaction, Fredrick Herzberg (1959) divided the job factors into 2 categories to examine satisfaction, Douglas McGregor (1960) through his X and Y theory analysed opposing perceptions of human behaviour at work, David McClelland (1961) emphasised how needs shaped by life's experiences affect satisfaction, Clayton Alderfer (1969) combined processes of satisfaction-progression and frustration-regression to explain employee changing needs, John Adams (1963) explained relational satisfaction in terms of perceptions of distribution of resources within interpersonal relationships, Victor Vroom (1964) showed that desirability of outcome decides the satisfaction, Locke (1968) stressed on role of intentions in ascertaining satisfaction, Hackman and Oldham (1975) argued that job characteristics and the resulting psychological states influence job satisfaction and Judge, Locke and Durham (1997) accentuated the inborn temperament of people that led them to have a certainlevel of satisfaction.

Edward E. Lawler III & Richard J. Hackman (1971) - They conducted studies regarding corporate profits and employee satisfaction. They probed then predominant opinion that companies would prefer increasing their profits to the utmost level rather than focussing on job satisfaction of employees. They showed that though the simplification of work procedures improves and raises profit levels, it leads to a drop in satisfaction levels. When the work is broken down into small tasks, it gets monotonous, standardised and expendable. On one hand this fragmentation of work into smaller chunks improves quality but on the other it reduces morale among the workers. They concluded that if companies continue to neglect employees' well being, it will affect them adversely in the long run. Their expenditure on increasing employee satisfaction will be lesser than the costs they will incur when it's not taken care of, leading to problems of absenteeism, labour turnover and ultimately reduction in productivity and profits.

Donald P. Schwab & Marc J. Wallace Jr. (1974) - They studied all the research work done on different facets of job satisfaction till then and found that relation of pay with satisfaction deserved further enquiry. They held that organizations should be more concerned with

equating employee's satisfaction with their pay for it's one of the major costs that they incur. They examined 6 personal and organizational aspects of satisfaction among male and female employees of a large company which manufactured durable consumer goods. They found that several variables contributed to relating satisfaction with pay, still there were other unexplored factors that bore an impact on difference in satisfaction of employees who shared similar scores in variables used.

Gene Milbourn Jr. And J.D. Dunn (1976) - They worked on a study which intended to help the managers of small organisations to scrutinize the attitudes of their employees, gather data regarding it through suitable questionnaire and use the information received after interpretation to improve management practices. They held that job satisfaction is the compounded feeling an employee has about his work, salary, opportunity for promotion, supervisors and co-workers. It's the policies and practices of a company that decide and influence how much a worker is satisfied in above 5 areas. The manager has the responsibility to plan and provide an optimal work environment so that the employees are content and yield positive results.

Richard D. Arvey, H. Dudley Dewhirst & Edward M. Brown (1978) - They conducted a long study on 245 working scientists and engineers where their managers were trained in Management by Objectives program. Two questionnaires were distributed among the respondents with time gap of 21 months between the two. They intended to evaluate percept of goal setting behaviour of managers along 4 attributes – goal clarity and planning, subordinate freedom, feedback and evaluation, participation in goal setting. Their intrinsic, extrinsic and total satisfaction was also delved into. They worked out that positive correlations were found between changes in goal setting factors and changes in variables of satisfaction. They also concluded that job task had a moderating influence on goal setting-satisfaction relationships. Managerial behaviour regarding goal clarity and planning fell significantly over 21 months while feedback and evaluation factor showed substantial increase.

Ashraf Shikdar & Biman Das (2003) - They showed that satisfaction of the employees working in industrial production sector increased as result of specific and participative standards along with feedback regarding performance. Participative standard and feedback contributed the highest towards increasing job satisfaction. They also positively affected attitudes that workers had to their jobs. Monetary incentive when given with specific or

participative standard together with feedback did not lead to any increase in satisfaction or job attitude. The managers must use the blend of participative standard with feedback as their strategy to ameliorate satisfaction and job attitude in a monotonous industrial job.

Saziye Gazioglu & Aysit Tansel (2006) - They explored connections between different measures of job satisfaction and various personal and job characteristics. Data used was collected from 28,240 employees from workplace employee relations survey. The authors studied how satisfaction varied with influence over job, amount of pay, sense of achievement and respect from supervisors. It was found that women, people with less educational qualifications, elder persons, non union members, managers, professionals and clerks were more satisfied. Higher incomes, job training, short working hours and large organisations induced greater satisfaction. When satisfaction was considered industry wise, people in manufacturing and financial sector were more satisfied than in wholesale and retail trade area. Same was true for workers in electricity, gas, water and construction sectors. Education and health sector registered greater satisfaction in sense of achievement but less in respect of pay.

Paul E. Madlock (2008) - He examined how the communication ability and leadership style of the supervisor had an impact on job and communication satisfaction of employees. Data was collected from 220 full time employees (which included 116 men and 104 women) working in a variety of companies in Midwest. Strong relation was found between communicating ability of supervisor and leadership style he used for getting tasks done and maintaining relations and job & communication satisfaction of employees. Communication ability was more effective in providing dual satisfaction to employees.

4. NOTEWORTHY CONTRIBUTIONS IN THE FIELD OF PROPOSED WORK

4.1 Job Satisfaction in Public Sector

Bram Steijn (2002) – He used the survey conducted by the Dutch Ministry of Internal Affairs among 14,212 workers working in all organisations of public sector except health. Job satisfaction was measured with respect to variables related to individual characteristics, job characteristics, work environment and human resource management practices. It was found that overall job satisfaction was not high. Employees were not so satisfied with management, salary and their workload. The work environment to a large extent influenced and increased satisfaction among workers while skill utilisation and human resource management practices had an indirect effect.

Harouna Saibou (2011) – The study was conducted in capital city of Niger through telephone and questionnaires distributed through email among 203 public sector employees. The survey dealt with questions related to job satisfaction, age, gender, education level, tenure and marital status. Data was analysed through descriptive statistics - using mean, standard deviation and correlation. The employees were found to be satisfied with colleagues, supervisors and nature of work itself. But they felt that management could provide them with higher salary and better opportunities for promotion. Except marital status, all other demographic variables were found to be strongly related with job satisfaction.

Chunkui Zhu, Chen Wu & Min Yan (2011) - They conducted survey in government departments of 5 provinces of China. A demographically diverse group of 1027 respondents was selected as sample from various sectors. They tested degree and variance of job satisfaction across 5 attributes- attraction to policy making, commitment to public interest, self sacrifice, compassion, and willingness to help others. The first 3 dimensions had greater positive impact on job satisfaction.

Morad Rezaei Dizgah, Mehedad Goodarzvand Chegini and Roghayeh Bisokhan (2012) – They conducted a survey in one of the 31 provinces of Iran among the public sector employees. Population size was taken to be 6863 and sample size of 323 was selected through non-probabilistic sampling. Correlation and Cronbach's alpha coefficient was used to

analyse the data collected. Both in-role performance and innovative performance were found to have meaningful relation with job satisfaction. They suggested that managers should elucidate tasks of employees so that they are clear about their rights and duties. They should also provide good working conditions so that employees can come up with innovative ideas.

4.2 Job Security

A. Nikolaou, I. Theodossiou & E.G.Vasileiou (1996) - They studied relation between job security and job satisfaction in 7 different European countries. The survey was conducted among 6,326 employees by means of questionnaire that dealt with questions related to their perception towards employment, general attitudes to work, work organisation and other socio-demographic variables. They found job security to be positively related to marital status, public sector employment, long tenure, age & union membership. Workers in Greece, Spain and Netherlands were more content than their counterparts in Great Britain.

David G. Blanchflower & Andrew J. Oswald (1999) - They studied how job satisfaction varied in 18 counties of USA by collecting data from a random sample of 50,000 people. Results reported a slow but steady decline in satisfaction from 1970 to 1990 and the major cause behind it was the feeling of job insecurity among the employees working in various organisations. Highest rate of job satisfaction was found in South Ireland though it was one of the poorest counties of USA.

Gholamreza Jandaghi, Ali Mokhles & Hamid Bahrami (2011) – They conducted a descriptive cum field study through questionnaires distributed among 158 employees in Iran to study relation between job security and job satisfaction. Correlation, t-test and multivariate regression analysis was used to analyse the data collected. The results depicted that satisfaction among permanent employees was higher than that among contractual ones. Employees who had greater job security were not only more content but also more committed to the organisation.

4.3 Non monetary Incentives

Kenneth Kovach (1999) - He conducted a survey among 1000 employees and collected data regarding what employees actually desired from their jobs and what their seniors perceived they wanted. Results favoured the effectiveness of non monetary benefits over monetary ones. According to the data analysed, employees listed interesting work as the most important motivator followed by appreciation, autonomy, job security and good wages.

Bob Nelson (2001) – He also supported the idea that non-cash incentives raised job motivation by lowering stress, absenteeism & turnover and by raising spirit, performance, efficiency & revenue. He conducted surveys in 34 organisations of U.S. during the period of 1999-2000. Both managers and employees agreed on the importance and effectiveness of non-monetary incentives. He also showed that with time, monetary incentives were considered to be rightful entitlements which employees assumed to be provided without any extra effort from their side. Also people focussing on individual cash rewards rather than enjoying team success made impact of monetary incentives feeble.

Nilay Yavuz (2004) – The paper intended to determine the extent to which non-monetary incentives were used in public sector of Turkey and whether they were effective in increasing motivation of employees. Results showed that though non-monetary incentives, especially social and job related were highly valued, they were still under utilized by organisations as felt by the employees. Employees were in general not satisfied with their pay, yet they did not disregard the importance of a meaningful job with responsibility, autonomy, skill variety, task significance, feedback etc.

Sara Depedri, Ermanno Tortia & Maurizio Carpita (2010) – They studied relationships between incentives, satisfaction and performance of employees in social enterprises. Data was collected from 4134 employees working in 320 social cooperatives. Though monetary incentives did affect satisfaction positively, it were the non monetary incentives, such as autonomy and participation in decision making, that had a major impact on employees' satisfaction.

Saima Mahmood and Asad Zaman (2010) - They experimented on the relevance of monetary and non monetary gifts to influence productivity of workers through social exchange. Results found that employees responded more to non monetary gifts in terms of

improved productivity, compared to monetary incentives. But discontinuation of monetary incentive had a more negative effect compared to stopping of non monetary gifts.

4.4 Work Life Balance

Mohammad Niaz Asadullah & Rosa M. Fernandez (2008) - They studied work life balance practices and gender gap in job satisfaction of employees in UK. They found that these practices equally improved the well being of males and females. Through surveys conducted over a span of 6 years, the effect of practices remained significant but the gender gap in job satisfaction reduced by half. They concluded that there are other factors excluding those related to the firm that caused gender gap in Britain which was not seen in other European countries.

Syeda Ismat Ikram & Monmna Anwar (2009) – They inquired into how job satisfaction and work life balance were related by conducting surveys among 120 employees of both public and private sector from cities of Rawalpindi and Islamabad. Results showed that employees working in private sector, living in nuclear families, having high education and high pay scale had greater work life balance and were more satisfied. The relation of work life balance and job satisfaction was unaffected by gender, marital status, age and experience.

Sakthivel Rani, Kamalanabhan & Selvarani (2011) - They studied the relation between work life balance and employee satisfaction by conducting a survey among 210 middle level employees working in an IT organization. The relation between work/life balance and other variables, namely career opportunities, recognition, work tasks, pay and superior subordinate relation was found to be positive which then led to job satisfaction.

Dr. Muhammad Iqbal Saif, Muhammad Imran Malik & Muhammad Zahid Awan (2011) - They examined relation between job satisfaction and work life balance practices in Pakistan. Sample selected by them consisted of 450 layoff survivors working in two big organisations. They found that employee satisfaction and work life balance did not vary at different levels of management. Strong positive relationship was found between the variables, in sense of facilities- lunch breaks, sick leave, short leave, car financing loans, child education facilities and social support.

V. Varatharaj & S. Vasantha (2012) – They inquired into how work life balance affected job satisfaction with a special reference to women employees working in the service sector in Chennai city. Questionnaire was used to collect the data with sample size of 250. About half of the employees were satisfied with the way they managed personal and professional lives, enjoyed working in their respective organisations and were gratified with cooperation provided by their superiors.

5. Objectives:

- To determine the influence of factors related to work life balance on job satisfaction of Indian Public sector employees
- To find out the importance of job security for job satisfaction of Indian public sector employees
- To assess relevance of non- monetary benefits as a deciding factor for job satisfaction among Indian public sector employees
- To gauge the significance of hierarchical position as an impetus towards job satisfaction
- To compare job satisfaction among the employees working in a manufacturing organisation to those working in a non-manufacturing one

Hypotheses:

Null hypothesis 1: All BSP employees feel secure about their jobs, so there is no relation between job satisfaction level and job security level.

Alternate hypothesis 1: Perception of job security varies among employees, and has a significant positive impact on job satisfaction.

NH2: There is no relationship between job satisfaction level & employees' perception of non-monetary incentives provided by BSP, since similar subsidized medical, residential & educational facilities are available to all employees of BSP.

AH2: Employees rate these non-monetary incentives differently and that has a significant positive impact on their job satisfaction levels.

NH3: There is no relationship between job satisfaction level & employees' perception of their salary levels.

AH3: Employees' perception of their salary levels has a positive relationship with job satisfaction level.

NH4: There is no relationship between job satisfaction level & employees' perception of their organizational culture (as reflected by clear policies, inter-department cooperation, employee participation in decision making etc.).

AH4: Employees' perception of organizational culture has a direct relationship with job satisfaction level.

NH5: There is no relationship between job satisfaction level & employees' perception of the nature of their work (challenging work, manageable workload, safe working conditions).

AH5: Employees' perception of the nature of work has a direct relationship with job satisfaction level.

NH6: There is no relationship between job satisfaction level & employees' perception of their interaction with seniors (clear work instructions, easy access, regular feedback).

AH6: Employees' perception of their interaction with seniors has a direct relationship with job satisfaction level.

NH7: There is no relationship between job satisfaction level & employees' perception of training & learning opportunities.

AH7: Employees' perception of the training and learning opportunities has a direct relationship with job satisfaction level.

NH8: There is no relationship between job satisfaction level & employees' perception of their interactions with colleagues (equal distribution of work, cooperation among colleagues).

AH8: Employees' perception of their interactions with colleagues has a direct relationship with job satisfaction level.

NH9: The drivers of job satisfaction don't vary by gender.

AH9: The drivers of job satisfaction vary by gender.

NH10: The drivers of job satisfaction don't vary by age.

AH10: The drivers of job satisfaction vary by age.

NH11: The drivers of job satisfaction don't vary by role (designation) in the organization.

AH11: The drivers of job satisfaction vary by role/ designation.

6. RESEARCH METHODOLOGY

6.1 Introduction

This section focuses on how this study of the nature, level and variations of job satisfaction in Indian public sector was approached. It also examines the relative strength and significance of the key drivers of job satisfaction for employees working in this sector. It starts with description of research design selected for conducting investigation into the chosen topic. Then, the research method to be used is explained which includes discussion regarding sample, variables and data collection methods used. Finally, techniques of data processing and data analysis are dealt in detail along with statistical measures to be used to assist in the process.

6.2 Research Design

A quantitative research design using hypothesis testing will be adopted in the study. The rationale in using it is that the analytical method helps better in investigating relationships among variables in a specific situation. The type of investigation will be correlation which is more suited to this topic as it enables us to identify the important factors that are affecting the situation when there are multiple factors involved. The study will involve use of survey based research which measures the characteristics of population through sampling and questionnaire design. It also enables the researcher to make comparison between groups.

6.3 Population and Sample

The respondents to be selected for study will include about 1000 employees working under Bhilai Steel Plant in different sectors, like those related to production, administrative, educational areas etc. irrespective of their age group, gender and job profile. This will ensure that a holistic picture of prevailing job satisfaction among employees in this area is presented along with detailed analysis of how different aspects are affecting the psychology of the

employees. Probability sampling will be used wherein every population element has an equal probability of being chosen.

6.4 Data Collection

Survey will be used as the method of primary data collection in this study. It basically intends to gather information from a selected group of people using standardised questionnaires or interviews. It's efficient in the sense that it's capable of measuring many variables at a time without affecting the planned time or cost considerably. A survey does not only allow the researcher to collect a large amount of data in a relatively short period of time but also can be created and administered easily. It also reduces the chance of evaluator's bias and puts people at ease as mostly they are more comfortable responding to a survey than participating in an interview.

Questionnaires will be used as survey instruments to get the needed information from the respondents. Three types of data regarding the sample can be accessed through them. First factual questions can give demographic information and that about socio economic status, education etc. Then, behavioural questions can provide insight into actions or experience of respondents that affect their physical, emotional and mental well being. Finally, attitudinal questions can cover opinions, attitudes, beliefs and values of the people. The questionnaire will involve a set of close ended questions with Likert scale options in response categories. That will show the extent to which the person agrees or disagrees with the statements.

6.5 Reliability and Validity

Reliability refers to the consistency and /or repeatability of a measure. A questionnaire is considered reliable when it's consistent, i.e. clear and well defined so as not to confuse the respondents, and repeatability means that the questionnaire should yield same results if the survey is repeated again. Here, reliability will be measured numerically. Both Cronbach's alpha and standard error of measurement will be used to establish the required reliability of the questionnaire.

Validity refers to the degree to which the administered questionnaire measures what it is supposed to measure. Validation assesses the dependability of the questionnaire and ensures that data obtained are reliable and true. Here, internal validity will be established through the use of statistical regression.

6.6 Data Analysis

Both descriptive and inferential statistics will be used for the statistical analysis of the collected data.

Descriptive statistics generally summarise the sample collected along with the recorded observations. Such summaries can either be in form of summary statistics or in form of graphs. They provide a basis for further statistical investigation of data. The demographic data of this research will be examined through univariate analysis which studies 3 different features of one variable at a time, namely, distribution, central tendency and dispersion.

Inferential statistics involve techniques to draw generalizations about the populations from which samples are drawn. They provide detailed information about the relationships between variables, reveal causes and effects, make predictions and generate convincing support for a given theory. Following inferential statistical methods will be used for testing the hypotheses of the research:

6.6.1 Chi- square Test

This test is used to examine differences between groups when variables involved are nominal like gender, salary group, ethnicity etc. It is used to test goodness of fit and independence of random variables. In this study, it is used to examine whether two variables or factors are related or not. After establishing required hypothesis & tabulation, following formula will be applied:

$$\chi^2 = \sum \frac{(observed \times frequency - expected \times frequency)^2}{(expected \times frequency)}$$

6.6.2 ANOVA

Analysis of Variance, popularly known as ANOVA, is generally used to analyse the effect of categorical factors on a response to see if there is any difference between groups on the same variable. One- Way ANOVA can be used in the study wherein the data is divided into groups according to one factor. F-test will be used to test the equality of variances by using following formula:

$F = s_1^2 / s_2^2$

where s_1^2 and s_2^2 are the sample variances. The more this ratio deviates from 1, the stronger the evidence for unequal population variances.

It enables to determine how much variance is caused by manipulation of independent variables after measuring the resultant change in dependent variables.

6.6.3 Multiple Regression Analysis

It is used to evaluate the effects of two or more independent variables on a single dependent variable. It may be conducted using either a raw data matrix or correlation matrix. It allows the researcher to predict respondents' score on one variable on the basis of their scores on several other variables. This technique will help to show which of the observed variables are able to predict the independent variable (job satisfaction) in the best possible way.

6.6.4 Pearson Product Moment Correlation Coefficient

It is used to determine whether there is a significant relationship between two variables. It quantifies both strength as well as direction of such relationship. It considers both position of person in the group and amount of his/her deviation above or below the group mean. It is computed by the following formula:

$$r_{xy} = \frac{\sum_i ((x_i - \bar{x})(y_i - \bar{y}))}{\sqrt{\sum_i (x_i - \bar{x})^2 \sum_i (y_i - \bar{y})^2}}$$

where $\bar{x}$ is the sample mean of x and $\bar{y}$ is the sample mean of y

It will be used to probe into relationship of different variables with job satisfaction among the employees which will help to give a fair idea about range of relations among the variables.

8. EXPECTED OUTCOME OF PROPOSED WORK

This research is expected to shed light on the state of job satisfaction among employees in public sector companies and the factors that impact it. Those insights can help public sector organizations review and revise their human resource policies to better suit the needs of their employees. This will have several positive outcomes for such organizations in the short and long term, some of them being:

- Improvements in employee productivity due to reduced job stress, since employee needs have been met
- Higher employee commitment to the company, translating into reduced attrition
- Improved talent acquisition, due to the company being perceived as 'employee friendly'

Higher job satisfaction would thus have a 'snowballing effect' and lead to all round growth of public sector organizations.

9. EXPECTED LIMITATIONS OF PROPOSED WORK

- The proposed research will study a small sample of total number of employees in SAIL
- Employee's level of interest and willingness to respond may affect responses in the questionnaire
- Quantitative data analysis to be adopted in the study suffers from the drawbacks of narrower dataset, standard questions, lack of depth and insight due to objective view and can lead to structural bias and false representation.
- Small set of questions can never cover all the aspects of job satisfaction since it has many dimensions.

PLAN OF STUDY

The proposed research will be divided into following parts.

Part 1

1) Introduction

2) Review of Literature

3) Research proposition

Part 2

4) Research context

5) Research methodology

6) Results and findings

Part 3

7) Summary and conclusion

8) Research implications

9) Future directions

Appendices: Questionnaire, Details of respondents

Bibliography

Chapter wise details of proposed research:-

Chapter 1: Introduction

It will start with a general introduction to the topic of job satisfaction and how it emerged as an important aspect requiring adequate attention in the industrial scenario. Next, it will discuss the basic theories of job satisfaction. Then, the main subtopics will be described, namely, public sector enterprises, public sector in India, job security, non-monetary benefits and work life balance.

Chapter 2: Review of Literature

This section will begin with discussing the definition of job satisfaction and its types. Then, the various theories of job satisfaction propounded by economists, psychologists and management & business professors will be dealt in detail. Finally, previous research work done in this area will be presented, considering their relevance for this study.

Chapter 3: Research Proposition

It will create a general framework for the research - building blocks of the structure which will determine the scope of the work. It will include the statement of problem, research objectives and the hypotheses along with the assumptions and limitations of the study. It will give an overview of what the work intends to study.

Chapter 4: Research Context

It will focus on Bhilai Steel Plant as an employer and will investigate into the various facilities provided and welfare schemes launched for the benefit of its employees. It will also discuss the important policies of the organisation, especially, personnel, human resource and safety policies.

Chapter 5: Research Methodology

It will discuss research design, population and sample to be used and the chosen method of data collection, together with the rationale for their selection. It will also describe the manner in which reliability and validity of the collected data will be ensured. The collected data will be presented in an appropriate manner, through, charts, graphs and tables. Then, data analysis

will explain and utilize statistical techniques for testing the hypotheses and drawing conclusions.

Chapter 6: Results and Findings

This chapter will first give a description of the respondents- their classification and on what basis they were put in separate groups. It will then present the results of statistical analysis done in the previous chapter. Lastly, it will present the tests of proposed hypotheses, individually.

Chapter 7: Summary and Conclusion

Here, the research findings will be examined in more detail and will be linked to the research problem and its purpose. This section will also discuss whether the results have successfully attained the objectives set before the research work actually started. It will also give main points of the whole work in a concise form. The conclusion will include interpretation drawn from the findings and also the major inferences.

Chapter 8: Research Implications

This segment will include suggestions gleaned from the results regarding the factors which play a decisive role in influencing the job satisfaction of the employees considered in the study. They will assist the organisation to take necessary steps to ensure optimum effectiveness of its policies. They will also help senior officials to manage their teams in a better way so that both the company and its employees achieve their goals.

Chapter 9: Future Directions

This section will contain recommendations for future research on the basis of observations and limitations of the present study. It will also suggest the areas which could not be highlighted or issues which were not addressed. It will include all the aspects of the work- techniques and methods incorporated, which in some way or the other, could have restricted the scope of the study and which can be covered in forthcoming work investigating the chosen research topic.

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